XPACE TECHNOLOGIES

Project: Movie Recommendation System

Scenario:

You are a Data Scientist at a startup building a new streaming platform to compete with giants like Netflix and Amazon Prime. The platform aims to recommend personalized movie suggestions to its users based on their viewing history, ratings, and preferences.

Task:

Your task is to create a basic movie recommendation system using a dataset of movie ratings. The system should be able to:

1. **Analyze User Preferences**:
    - Identify patterns in user behavior, such as the genres they prefer and the types of movies they tend to watch.
2. **Recommend Movies**:
    - Based on the patterns identified, recommend movies that the user hasn't seen yet but are likely to enjoy.
3. **Evaluate Recommendations**:
    - Measure the effectiveness of your recommendations by comparing the recommended movies to the movies the user has actually watched and enjoyed.

Guidelines:

1. **Data Exploration**:
    - Start by exploring the dataset to understand the structure, ratings distribution, the most popular genres, and so on.
2. **Building the Model**:
    - Use basic collaborative filtering techniques (e.g., user-based or item-based) to build the recommendation system.
3. **Recommendation Process**:
    - For each user, recommend a list of movies based on the highest predicted rating.
4. **Evaluation**:
    - Use metrics like Mean Absolute Error (MAE) or Root Mean Square Error (RMSE) to evaluate the accuracy of your recommendations.
5. **Dataset**:
    - Download a suitable movie ratings dataset from Kaggle to use for this task.

Deadline:

Submit your project by **25-Octuber-2024**.